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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,169	01/03/2001	Koichi Tanaka	16869P-019200US	2772

7590 08/27/2003

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EXAMINER

MANOSKEY, JOSEPH D

ART UNIT	PAPER NUMBER
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2184

DATE MAILED: 08/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/754,169	Applicant(s) TANAKA ET AL.	
	Examiner Joseph Manoskey	Art Unit 2184	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2001.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some * c) ☐ None of:
 - 1. ☒ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 4, line 30 there is reference to "controllers 6000 and 7000", but on lines 19 and 26 of the same page 6000 and 7000 are referred to as fiber channel loops respectively.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The claim is generally narrative and indefinite, failing to conform with current U.S. practice. It appears to be a literal translation into English from a foreign document and is replete with grammatical and idiomatic errors.

5. The scope of the claim cannot be ascertained from "a input device to switching" and as a result the subject matter that the applicant regards as the invention cannot be determined.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Chong, Jr.

7. Referring to claim 1, Chong, Jr. teaches a storage system with redundant components (See Fig. 5A) comprising a plurality of disk devices (See Fig. 5A and Col. 4, lines 41-42). The system is also comprised of a first controller with the first controller connected to a first host and a second host, also a second controller with the second controller connected to the second host and the first host. The two controllers act as backup controllers or stand-by controllers for each other (See Fig. 5A and Col. 4, lines 48-57). Chong, Jr. also discloses a data link between two controllers (See Fig. 1B and Col. 1, lines 45-47) for communications between the two controllers. Finally Chong, Jr. teaches the second controller performing the data transferring for the first controller when the first controller is not functional and the first controller doing the same for the second controller when the second controller is not functional (See Col. 5, lines 21-42).

8. Referring to Claim 3, Chong, Jr. discloses the transferring of data from the first controller to the second controller so that in the event that the first controller fails the second controller can continue with the operation (See Col. 3, lines 41-59).

9. Referring to Claim 4, Chong, Jr. teaches that the backup controller takes control of the data transfer until the primary memory controller is replaced (See Col. 1, lines 27-35). After the replacement, control would return to the primary memory controller.

10. Referring to Claim 6, Chong, Jr. discloses the use of a fibre channel for connecting the first and second controller to the first and second host (See Fig. 5B and Col. 3, lines 6-8).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chong, Jr. in view of Uchiyama et al.

13. Referring to claim 2, Chong, Jr. discloses all the limitations (See rejection of claim 1) except for the controllers having a plurality of ports for connection to a plurality of hosts. Uchiyama et al. teaches a storage system that has a plurality of ports to connect to a plurality of hosts (See Fig. 1 and Col. 1, lines 16-27). It would be obvious to one of ordinary skill in the art at the time of the invention to use the plurality of ports of Uchiyama et al. for the current and stand-by ports of Chong, Jr. This would be obvious to one of ordinary skill in the art during the time of the invention to do this to improve reliability and availability by using the redundant components (See Uchiyama, Col. 1, lines 21-27) to allow more than the two hosts of Chong, Jr. to be connected to the memory control system.

14. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chong, Jr. in view of Idleman et al.

15. Claim 5 is rejected using the best understandable interpretation due to its earlier rejection under 35 U.S.C. 112, second paragraph, for indefiniteness.

16. Referring to claim 5, Chong, Jr. teaches all the limitations (See rejection of claim 4) except for the system further comprising an input device switch. Idleman et al.

discloses a storage system with a switch (See Fig. 3). It would be obvious to one of ordinary skill in the art at the time the invention was made to combine switch of Idleman et al. with the storage system of Chong, Jr. This would have been obvious to one of ordinary skill in the art at the time of the invention to be lead to do this since it increases the reliability of the system by allowing a computer to access the disk drives through more than one path in the event that a component fails (See Idleman et al., Col. 8, lines 15-20). This would allow each of the controllers in Chong, Jr. access to all the disk drives on their primary paths and also on their backup paths, which would increase the overall goal of reliability of the system.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Griffith and McLaughlin et al. are cited to show other closely related dual control systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Manoskey whose telephone number is (703) 308-5466. The examiner can normally be reached on Mon.-Fri. (8am to 4:30pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7238 for regular communications and (703) 746-7238 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

JDM

August 20, 2003


ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100